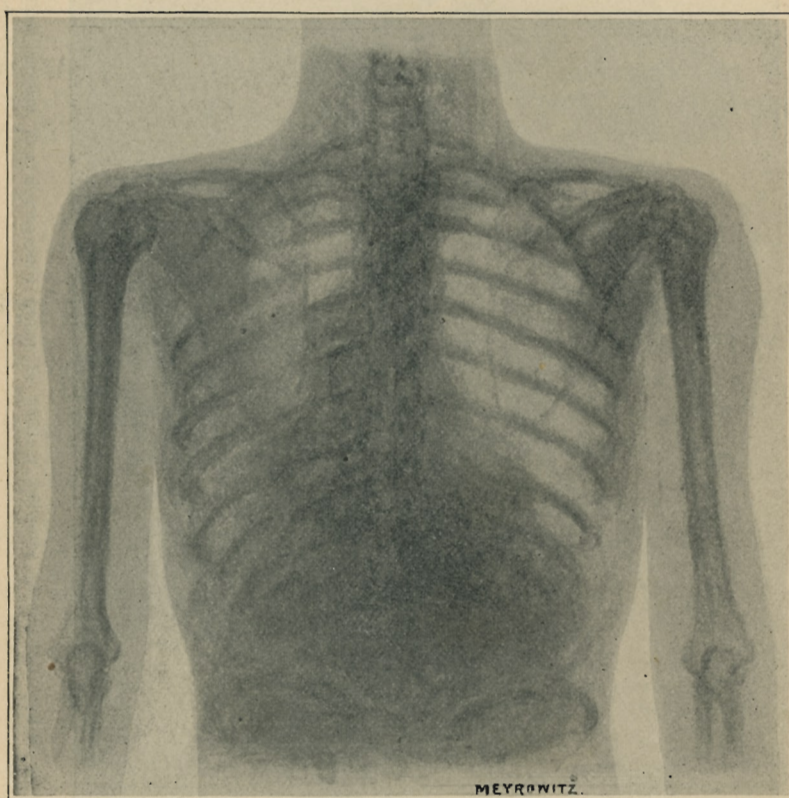


Part X—Second Edition.

ILLUSTRATED CATALOGUE
— OF —
X-RAY APPARATUS
USED IN
RADIOGRAPHY and FLUOROSCOPIC DEMONSTRATION,
RADIOGRAPHS, LANTERN SLIDES, X-RAY DRY PLATES, ETC.



MANUFACTURED BY

E. B. Meyrowitz.

104 EAST TWENTY-THIRD ST., NEW YORK.

BRANCHES:

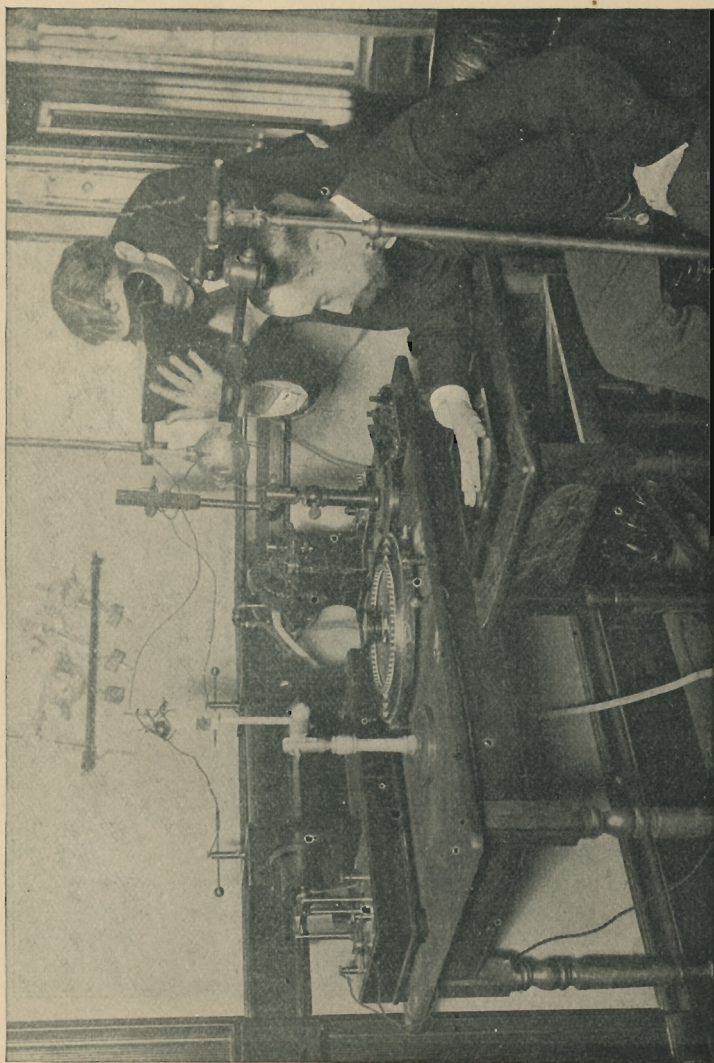
MINNEAPOLIS, MINN., Cor. Nicollet Ave. and 6th St.,
(DAYTON BUILDING.)

ST. PAUL, MINN., 338 St. Peter St. (Lowry Arcade.)

MAIN FACTORY:

404, 406, 408 and 410 East 37th Street

NEW YORK.



View of X-Ray Laboratory showing method of using Fluoroscope and taking Radiograph of hand.

APPARATUS FOR THE PRODUCTION OF ROENTGEN OR X-RAYS

The apparatus required for the production of the Roentgen or X-Ray consists of the following parts :

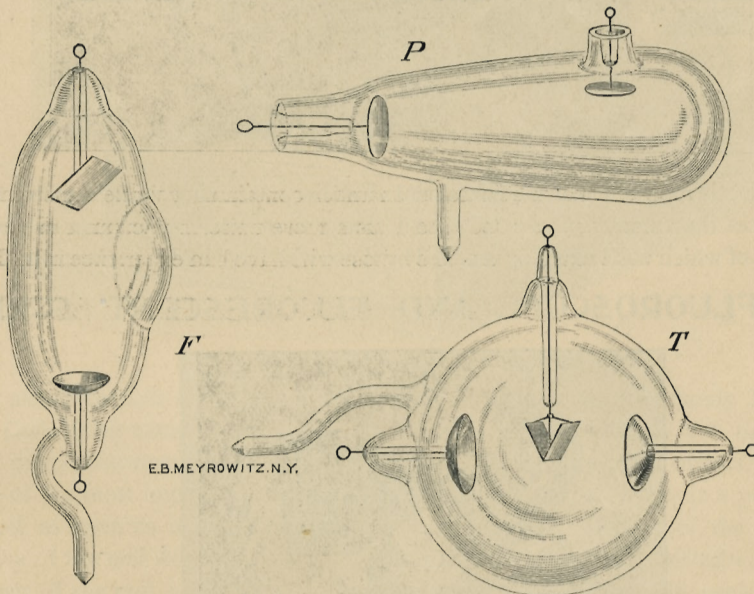
1. THE CROOKES' TUBE.
2. RUHMKORFF INDUCTION COIL.
3. A SOURCE OF ELECTRIC CURRENT.
4. EDISON FLUOROSCOPE OR FLUORESCENT SCREEN.

The Electric Current may be generated by Primary Batteries, Storage Batteries, Static Machines and Constant or Alternating Electric Current.

To enable the observer to see the X-Ray, it is necessary to employ a screen of Tungstate of calcium which is mounted in a frame that can be stood on a table in a dark room or in the shape of a Hand Fluoroscope, which is a hood fitting closely to the face and excludes the outside light.

DESCRIPTION OF PARTS.

CROOKES' TUBES.



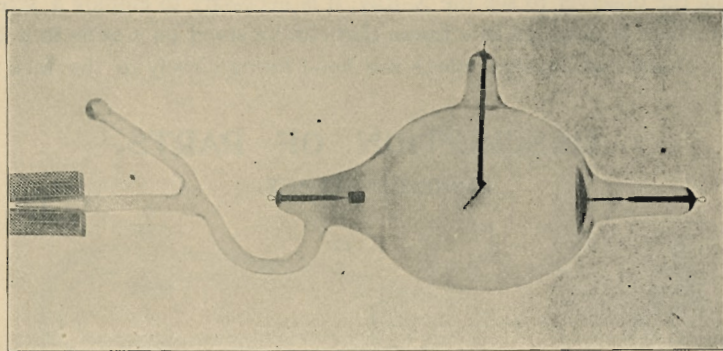
The Crookes' tubes which are used to generate these rays, are so named after Sir William Crookes, F.R.S., who constructed them for his famous experiments in radiant matter. In these tubes the air has been exhausted to such a degree that the remaining particles have a vastly greater freedom of movement than when under usual atmospheric pressure.

Under these circumstances, on leading a powerful electric force into the tube by means of its sealed-in electrodes, these air particles are thrust to and fro between the electrodes and the glass opposite, just as an electric machine causes pith balls to dance, and by their incessant bombardment cause heat to appear in both metal and glass and also the glass to

phosphoresce. It is from the phosphorescent spot on the glass that the X-Rays emanate.

These tubes are made in various shapes—Globular, Pear-shaped (Fig. P.), and Cylindrical (Fig. F). The most efficient and latest improvement in this line, is the Focus Tube (Fig. F), so called on account of the peculiar construction of the electrodes. The concave electrode is always to be used as the cathode. The cathode rays, proceeding from it, focus on the platinum sheet which forms the anode, sending off from the spot on which they focus a powerful stream of X-Rays. As this spot is quite small, radiographs made with this tube are always well defined and may now be made in a much shorter time than would have been considered possible at an earlier period. Fig. T represents a Thompson Double Focus Tube, having two cathode electrodes the rays from which are projected simultaneously against the V-shaped anodes placed between them, and give a very brilliant fluorescence.

ADJUSTABLE VACUUM TUBE.



This tube is supplied with an additional chamber containing volatile salts, the heating of which reduces the vacuum of the tube, and thus a more uniform vacuum can be obtained, the advantage of which will be readily realized by those who have had experience in X-Ray work.

THE FLUOROSCOPE AND FLUORESCENT SCREEN.



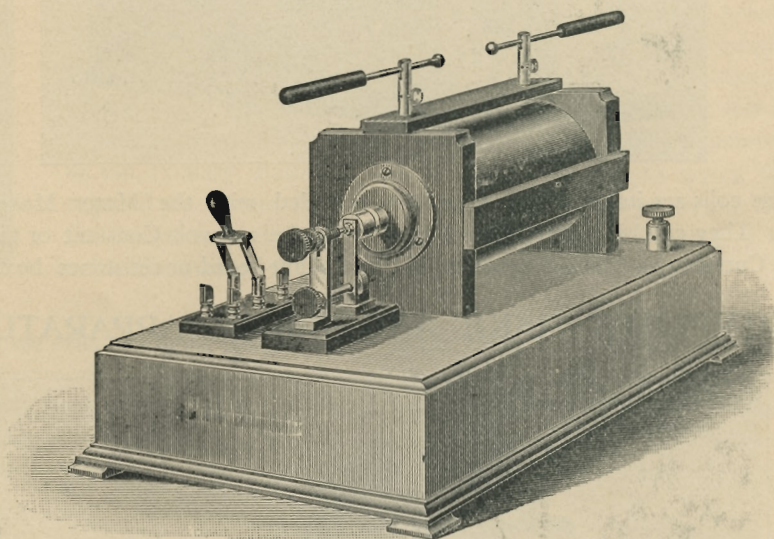
The Fluoroscope designed by Mr. Edison consists of a flaring box, curved at one end to fit over the forehead and eyes like a stereoscope. The end of the box is closed by a paste-board cover, on the inside of which is spread a layer of tungstate of calcium, which material

Mr. Edison reports he has found to possess six times the fluorescing power under the influence of the X-Rays, as compared with barium platino-cyanide.

By placing the object to be observed, such as the hand, between the vacuum tube and the fluorescent screen, the shadow is formed on the latter and can be observed at leisure.

The Fluorescent Screens are made for use in public exhibitions, as they permit more than one person to observe the X-Ray picture at the same time in a darkened room. They are mounted in wooden frames with protecting glass over the tungstate of calcium, and can be either stood upon a table or suspended before the tube. The materials are the same as those used in the fluoroscope.

INDUCTION COILS.

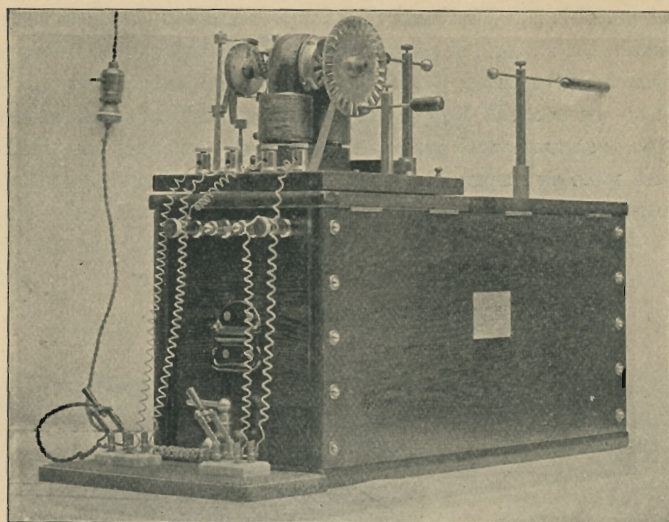


The induction coils furnished by us for this apparatus are commonly known as the Ruhmkorff Coil, being named after Ruhmkorff of Paris, who, although not the inventor of same, made many instruments of the kind, and contrived various improvements.

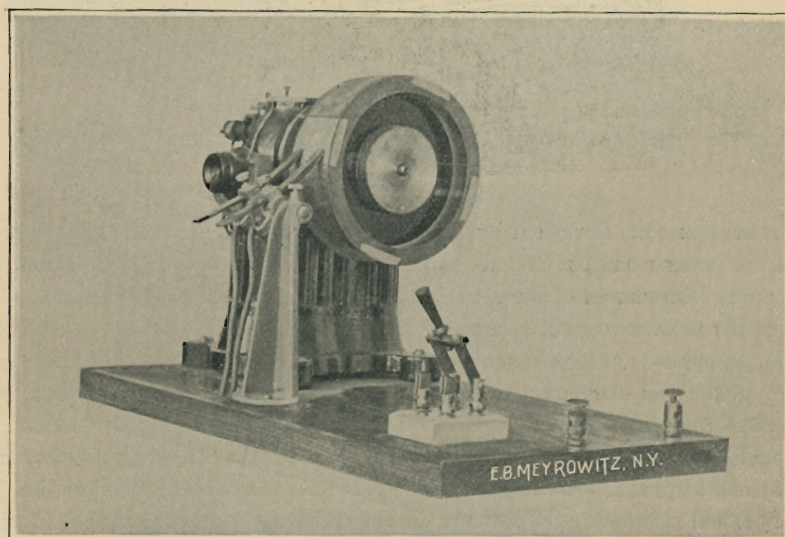
One of the most important factors in the production of the X-Ray is a perfect working induction coil, as upon its action depends the satisfactory fluorescence of the vacuum tube. The efficiency of the coil depends principally upon the *insulation of the secondary*, which is the most vital part of the coil, a break in this section rendering it practically useless. To overcome any possibility of internal sparking into the primary, or a tendency to spark from the coil to outside objects, a special insulating material is used in the winding of the coil.

The polished mahogany base of the coil contains a condenser suitable to the sparking capacity of the coil, and all coils are guaranteed to give a continuous spark of the size at which they are listed. A disconnecting switch and pole changer is mounted on the base of the coils.

The Coils are also provided with an adjustable vibrator, by which slow or rapid vibrations can be obtained, permitting instant adaption to the condition of the vacuum of the tube.

Special High Frequency Coil for Direct or Alternating Electric Currents.

These coils are immersed in oil and are provided with the Motor Make and Break Apparatus. They can be operated direct from either the 110-volt Constant or the 52 or 104 Alternating Currents without interposition of either shunt board or resistance box.

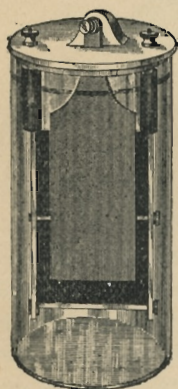
COMPLETE MAKE AND BREAK APPARATUS.

The Make and Break apparatus is designed to take the place of the Vibrator on the coil, and by reason of its rapid revolutions, produces as nearly a continuous fluorescence as it is possible to make. With it the finest results are obtained, both in Radiography and Fluoroscopic Exhibitions, and it should be employed on all coils of over 5-inch spark, as it reduces

the wear on the coil to an appreciable extent, and is much more satisfactory than the vibrator for continuous service. The wheel gives eight interrogations to each revolution, the brushes are set on an independent arm and can be adjusted over the surface of the wheel so that it will not wear in one place.

The motor operating the wheel is adjustable to various speeds, and can be regulated to give the best results with the current used.

The entire apparatus is mounted on a polished oak base, and separate switches are provided so that the motor may be started first and obtain headway before turning the current into the brushes and coil. Motors of proper voltage for use with either storage cells, or the electric current, will be furnished mounted complete as described above.



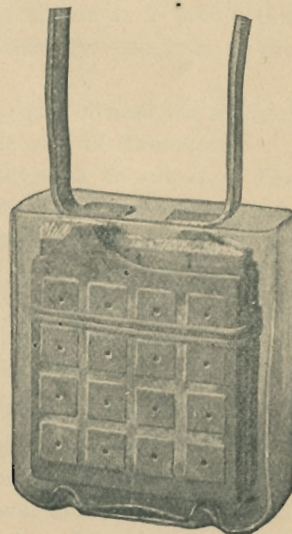
Primary Cells.

THE ELECTRIC CURRENT.

As has been previously stated, various methods of generating the electric current for the production of the X-Rays may be employed, namely: Primary Batteries, Storage Batteries, or the Direct or Alternating current, each working equally satisfactory, but requiring more or less accessory apparatus to add to their general efficiency. The least expensive form is to use Primary Batteries, and any good set of cells giving the voltage required to operate the coil, will answer, although we would recommend the Edison-Laland Battery Type S, eight cells of which give about 5.3 volts, the average voltage required by 4 to 6 inch coils.

With these cells, the outfit consists simply of the Tube, Coil, Fluoroscope or Screen, and batteries, the electro-motive force of the cells making it safe to use the vibrator of the coil without injury or detriment to the same, while the single condenser in the base of the coil has sufficient micro-farad capacity to give a good fluorescence; a more steady discharge is obtained by the employment of an additional adjustable multiple condenser of at least 2.5 micro-farads.

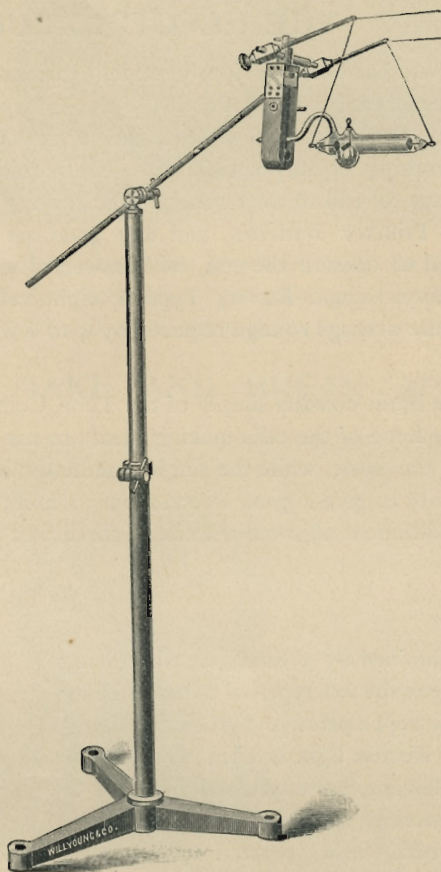
Similar results are obtained by 3 Storage cells, giving 6 volts, the difference between the two types of batteries being that the storage cells can be kept operative by being recharged at stated periods at any electric light station, while in the primary cells, the entire elements are consumed and have to be replaced. The use of storage cells also permit the employment of a make and break wheel operated by a motor, which takes the place of the vibrator on the coil, and reduces the wear to a minimum and gives the most perfect fluorescence in the tube. Two additional storage cells are required to operate the motor.



Storage Cell.

When making use of the constant incandescent current, it is only necessary to employ a shunt board to reduce the current to the required voltage. This will operate the coil in the same manner as the batteries, the source of current being in this case inexhaustible; at the same time a proportionately better result is again obtained by the make and break wheel, the motor of which can be also operated by the current.

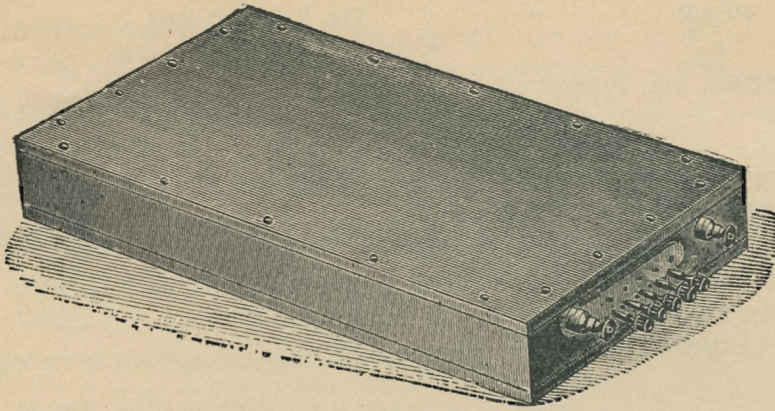
UNIVERSAL X-RAY TUBE STAND.



This stand is especially recommended for hospital use, as it can be placed on a table or the floor at will, and admits of all necessary adjustments. Being constructed of bicycle tubing, it is very light in weight while at the same time possessing great rigidity. The tube holder can be raised or lowered over a vertical range of six feet, and within these limits, through a circle of three feet radius.

Connections are so arranged that *there can be no sparking* from tube to stand.

ELECTRICAL CONDENSERS.



The Electrical Condenser was invented by Volta, in the latter part of the eighteenth century, and it is so called because of its power of accumulating electricity which is received in repeated charges from other bodies until quantities too minute in themselves to be otherwise perceptible have been collected to any desired amount. The modern electric condenser is a great improvement upon the original air condenser introduced by Volta, although the electrical laws governing both are the same. It is an instrument whose function is to accumulate by induction a large or small quantity of electricity, depending upon the capacity of the particular instrument, on a comparatively small surface, and in a short space of time.

Sometimes this property of accumulating electricity possessed by the condenser is used to effect certain results, by causing the electricity so accumulated to discharge through the instrument upon which it is devised to act. At other times this quality of the condenser is utilized to absorb or divert what may be termed "waste electricity," and which, if not thus absorbed or diverted, would not only act detrimentally on certain apparatus in which this "waste electricity" is generated, but would also reduce, by its presence, the efficiency of the apparatus.

It is for this special purpose of absorbing the surplus energy, and obviate the spark at the contact points, that the electrical condenser is used in connection with the Ruhmkorff Coil, and the larger the coil used, the greater micro-farad capacity it is advisable to employ. The condensers quoted are of the multiple adjustable pattern and are sub-divided into several sections, so arranged that by the insertion or removal of a plug or plugs on the outside of the case containing the condenser plates, the capacity may be increased or decreased as desired.

When a small capacity is desired, a plug is put in between the disc 4 and the brass strip, this only puts the four plates of the condenser into service, all the others being inactive. In the same way any one of the other sections may be put into operation. If the full capacity of the condenser is desired, all the plug spaces between the discs and the strip are filled with plugs.

To increase the capacity of an adjustable condenser, plugs are inserted; to decrease the capacity, plugs are removed.

Full directions for setting up and operating the apparatus accompany each outfit.

PRICE LIST OF APPARATUS.

CROOKES' GLOBULAR SHAPE TUBES, 5 inch diameter	\$ 5 00
“ PEAR “ “ Fig. P. 7 inch long.	6 00
“ “ “ “ “ 10 “	7 50
FOCUS TUBES, Fig. F, small size	6 00
“ “ “ med. “	8 00
“ “ “ large “	10 00
THOMPSON'S DOUBLE FOCUS TUBES, 3 electrodes, Fig T.	12 00
ADJUSTABLE VACUUM TUBE	10 00
When ordering Focus Tubes, state size of coil on which they are to be used.	
TUBE STANDS, adjustable to hold tube in any position	1 50
UNIVERSAL TUBE STAND	15 00
EDISON FLUOROSCOPE, 5 x 5 screen	9 00
“ “ 5 x 7 “	12 00
“ “ 6 x 8 “	15 00
“ “ 7 x 9 “	18 00
“ “ 8 x 10 “	20 00
“ “ 10 x 12 “	30 00
FLUORESCENT SCREENS, mounted in wooden frame, with protecting glass surface, according to size.	
Screen 10 x 12 inches	30 00
“ 12 x 12 “	36 00
“ 12 x 15 “	45 00
Larger sizes to order.	

INDUCTION COILS.

Mounted on polished mahogany base containing condenser, disconnecting switch and pole changer, guaranteed to give a continuous spark of the size listed.

2 inch spark	40 00
3 “ “	55 00
4 “ “	70 00
5 “ “	85 00
6 “ “	100 00
8 “ “	125 00
10 “ “	150 00
12 “ “	175 00
High Frequency Coil (see cut on page 5), complete for Alternating Current ...	150 00
“ “ “ “ “ Direct Current	175 00

ADJUSTABLE MULTIPLE CONDENSERS.

Sub-divided into five sections:

Total capacity 1 to 2 micro-farads	\$12 00 to \$14 00
“ “ 2 to 3 “	16 00 to 20 00
“ “ 4 to 5 “	22 00 to 26 00
“ “ 6 to 7 “	28 00 to 31 00
“ “ 8 to 10 “	34 00 to 38 00

BATTERIES.**EDISON-LALAND PRIMARY BATTERY, Type S.**

Ampere hour capacity 300

Volts.....0.66

Price, per cell, complete with one charge in porcelain jar.....\$ 2 85

Price of renewal charge, per cell.....1 25

Polished oak case with handles to hold 8 cells.....5 00

STORAGE BATTERY in hard rubber cell, 5 plates, size $7\frac{3}{4}$ x $7\frac{3}{4}$ inches.

Ampere hour capacity 75

Volts 2

Price per set of 3 in portable case, with handles 35 00

COMPLETE MAKE AND BREAK APPARATUS, consisting of 110-volt currentmotor, Make and Break Wheel, adjustable brushes and connecting switches,
mounted on oak base.....35 00

Same, with Battery Motor for use with Primary or Storage cells.....30 00

SHUNT BOARD, containing 12 lamp sockets for controlling amperage up to 18

amperes, and a shunting device reducing the voltage to 8 volts 20 00

PRICE LIST OF CARBUTT'S X-RAY PLATES.

SIZE.	PLATES PER DOZEN.	SIZE.	PLATES PER DOZEN.
4 x 5	\$ 80	10 x 12	\$ 4 50
$4\frac{3}{4}$ x $6\frac{1}{2}$	1 20	11 x 14	6 00
5 x 7	1 30	14 x 17	10 80
5 x 8	1 50	16 x 20	15 00
$6\frac{1}{2}$ x $8\frac{1}{2}$	2 00	17 x 20	15 60
7 x 10	2 50	18 x 22	19 80
8 x 10	2 90	20 x 24	22 20
			Individually enclosed in light proof envelopes.
			\$11 65
			15 90
			16 60
			21 00
			23 40

These plates from 4 x 5 to 11 x 14 inclusive, are individually enclosed in two light proof envelopes, so that they may be used under the X-Rays without any further preparation; 14 x 17 and larger sizes can conveniently be used by placing the X-Ray plate in a shallow photograph printing frame, placing over the sensitive side a sheet of opaque paper that will be found in each box, or at a slight additional expense are furnished in light proof envelopes. The composition of the Emulsion is such that the X-Rays are largely *absorbed*, and allows of shorter exposure with the production of more detail in the *Radiograph* Negative than can be obtained on ordinary Dry Plates, more especially when our **J. C. TABLOIDS** are used as the developer.

Put up in boxes containing 96 Tabloids each, with full instructions for use, and enough to develop 8 to 12 dozen 4 x 5 Plates or films. **PRICE, 75 Cents.**

N.B.—10 x 12 and larger sizes packed six plates in a box.

Prices of Complete X-Ray Outfits.

Outfit No. I	\$60 00
<i>Consists of</i> Ruhmkorff Coil, 2 inch spark. Crookes' Focus Tube F, small size. Adjustable Tube Stand. Hand Fluoroscope, 5 x 5 screen. 6 Edison-Laland Primary Cells.	
Outfit No. II	\$75 00
<i>Consists of</i> Ruhmkorff Coil, 3 inch spark. Crookes' Focus Tube F, small size. Adjustable Tube Stand. Hand Fluoroscope, 5 x 5 screen. 6 Edison-Laland Primary Cells.	
Outfit No. III	\$100 00
<i>Consists of</i> Ruhmkorff Coil, 4 inch spark. Crookes' Focus Tube F, medium size. Adjustable Tube Stand. Hand Fluoroscope, 5 x 5 screen. 8 Edison-Laland Primary Cells, <i>or</i> Shunt Board for use of Edison current <i>in place of Cells</i> .	
Outfit No. IV	\$140 00
<i>Consists of</i> Ruhmkorff Coil, 6 inch spark. Crookes' Focus Tube F, medium size. Adjustable Tube Stand. Hand Fluoroscope, 5 x 7 screen. 8 Edison-Laland Primary Cells, <i>or</i> Shunt Board for use of Edison current <i>in place of Cells</i> .	
Outfit No V	\$165 00
<i>Consists of</i> Ruhmkorff Coil, 8 inch spark. Crookes' Focus Tube F, large size. Adjustable Tube Stand. Hand Fluoroscope, 5 x 7 screen. 8 Edison-Laland Primary Cells, <i>or</i> Shunt Board for Edison Current <i>in place of Cells</i> .	
Outfit No. VI	\$200 00
<i>Consists of</i> Ruhmkorff Coil, 10 inch spark. Crookes' Focus Tube F, large size. Adjustable Tube Stand. Hand Fluoroscope, 5 x 7 Screen. 12 Edison-Laland Primary Cells, <i>or</i> Shunt Board for use of Edison Current <i>in place of Cells</i> .	
Outfit No. VII	\$225 00
<i>Consists of</i> Ruhmkorff Coil, 12 inch spark. Crookes' Focus Tube F, large size. Adjustable Tube Stand. Hand Fluoroscope, 5 x 7 Screen. 12 Edison-Laland Cells, <i>or</i> Shunt Board for use of Edison Current <i>in place of cells</i> .	

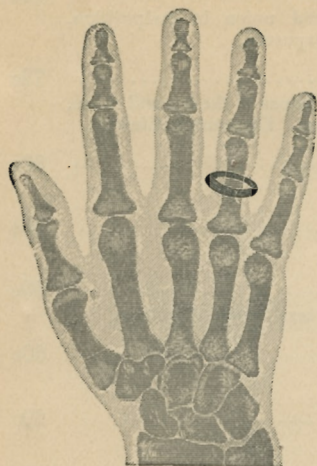
We have a fully equipped **X-Ray Laboratory** on the premises, where any of the above named apparatus can be seen in operation. We are prepared to make **Radiographs** for Physicians and Hospitals at reasonable prices, and can show the results within a few minutes after taking of Radiograph. We also develop and print Radiographs taken by others.

If Storage Batteries are desired in place of Primary Cells, special quotations will be given according to size of coil and apparatus employed.

Full directions for setting up and operating the apparatus accompany each outfit.

LIST OF RADIOGRAPHS.

NEGATIVES BY PROF. WILLIAM J. MORTON, M.D.,
NEW YORK.



DR. MORTON'S collection of X-Ray pictures is without doubt the largest and finest in this country. It covers a great variety of subjects, especially those relating to surgical diseases, injuries, and malformation of the bones. His work is characterized by its great accuracy in definition, and many of his pictures taken months ago have not yet been equalled. He has particularly excelled in large work like the pictures of the trunk, &c. His pictures, many of which are here enumerated, are constantly being added to by unique cases brought to him by physicians for X-Ray diagnosis. The value of the X-Ray to the surgeon is scarcely yet appreciated.

- Infant, Nine Weeks Old, Life Size** \$2 00
Showing with beautiful detail the bones of the skeleton, the stage of ossification, the location of the liver, stomach, heart, etc. Choice of two negatives.
- Adult Trunk, Life Size, From Chin to Pelvis** 2 00
Showing vertebræ, the shoulder joints, the ribs, the bones of the arm and elbow joint, the lung cavities, the heart.
- Adult Trunk, Life Size, Tubercular Disease of Head of Humerous** 2 00
Showing a normal and a diseased shoulder joint in contrast with each other. Otherwise same as above. The finest picture of the trunk thus far produced.
- Adult Trunk and One Shoulder Joint** 1 00
- Adult Head, Side View, Showing Skull and Cervical Vertibræ with Spineus Processes** 60c
- Adult Head, Side View** 60c
- Portion of Skull, Showing Roots of Teeth** 50c
- Adult Neck, Shoulder and Chest, Showing Location of a Bullet in the Chest and Behind the Sternum** 1 00
- Abdominal Cavity in Region of Kidneys** 60c
Showing negatively the absence of calculus in the kidney. Patient lying face downward, so that vertebræ and hip bones show but obscurely.
- Abdominal Cavity and Lumbar Spine** 60c
A case of suspected Potts disease in an adult.
- Adult Female Pelvis** 50c
Showing lumbar vertebræ, hip and thigh bones. Exposure 5 minutes.
- Pair of Large Adult Knees** 75c
Medico-legal case. Trolley car accident; undetected fracture and osseous growth on head of tibia. Showing value of the X-Ray and of comparing in the same picture the injured and the normal bones.
- Knee Joint, Child Aged 12** 60c
Showing skin, muscles, tendon of patella and bones. Case of partial ankylosis revealing that it was fibrous rather than osseous. A beautiful radiograph.
- Adult Ankle Joint** 75c
Showing old un-united fracture of the internal malleolus, separation of tibia and fibula. Distortion of astragalus, bone and adhesions. Upon seeing this picture the surgeon exclaimed, "This is a wonderful revelation; my entire plan of operation must be changed. I could not have known that the bone had failed to unite."

Adult Elbow Joint	60c
Old fracture, one year's standing; fracture of lower end of humerus and union in malposition. Ankylosis and osseous adhesion between radius and ulna. 3 minutes exposure.	
Normal Adult Foot in Shoe	75c
Showing leather of shoe, nails and metal shank, flesh, tendons and the bones of the leg and ankle, the tarsal bones and the phalanges; in short, the entire osseous structure. Exposure 5 minutes.	
Child's Ankle.	50c
Anchylolysis and active disease of the bone.	
Adult Foot	60c
With needle in it, foreshortened, top view.	
Adult Foot, Same Patient.....	60c
Side view, showing needle in length, operated upon with immediate success by aid of picture.	
Adult Foot	60c
Female, normal, view from sole of foot.	
Adult Forearm	60c
Blacksmith, showing location of two pieces of steel.	
Adult Forearm and Hand	75c
Showing an un-united fracture of the radius. Taken while within half-inch board splints and bandages, the pin shown fastened the dressings of the splints.	
Elbow Joint of Child	60c
Anchylolysis, the result of fracture and dislocation showing bands of osseous tissue. A very clear and instructive picture.	
Elbow Joint of Child	50c
Right and left, restricted motion. Picture shows it was probably due to fracture.	
Normal Adult Wrist and Hand	60c
A perfect radiograph, showing wrist joint, carpus, metacarpus and phalanges in perfect detail while still preserving throughout a ghost-like and <i>even</i> representation of the flesh.	
Positive of the Same. Bones show White	60c
Two Wrists and Hands on One Plate, Adult, Female	75c
Comparative method. Colles' fracture, one years' standing. Thought to be dislocation. Impaction of both radius and ulna. This picture is a revelation to surgeons. The injured may be inspected in contrast with the normal bones.	
Two Wrists and Hands on One Plate	75c
Tubercular disease of phalanges of left hand. Dr. White's case taken before the Medico Society.	
Two Wrists and Hands on One Plate	60c
Chronic rheumatism of one year's standing of left wrist, distortion of carpal bones.	
Hand, Adult, Female	60c
With needle in it. Taken at a meeting of the County Medical Society, April, 1896. Needle shows with great clearness. Operation unsuccessful before picture; by its aid immediately successful.	
Wrist and Hand, Adult, Female	60c
With diamond ring. Showing the easy penetrability of the diamond by the X-Ray.	
Wrist and Hand, Adult, Female.....	60c
With bracelet and ring. Two seconds exposure.	
Hand, Adult	60c
Showing location of bullet unsuccessfully probed for.	
Child's Hand	60c
Webbed fingers, prior to operation, juncture of bones. Congenital deformity.	
Child's Hand	60c
Y-shaped metacarpal bone, webbed fingers. Operation. Congenital deformity.	

Wrist and Hand, Adult, Normal	50c
A piece of Fluorescent screen has been laid upon a portion only of the plate, shows comparatively the effect of the Tungstate of Calcium screen in taking X-Ray pictures.	
Metallic Objects in a Box	50c
An early picture, taken with Static Machine.	
Handwriting of a Will within a Sealed Envelope	50c
Showing the possibility of reading the contents of sealed documents.	
Large Flounder	75c
Showing the bones of the fish and smaller shell-fish in the stomach. Makes a beautiful lantern slide in which by varying the focussing distance of the stereopticon lens, different planes of osseous structure are revealed.	
Trout, Showing Bones	50c
Roentgen Picture of a Picture of Roentgen	60c
Normal Kidney and Kidney containing Calculum on Same Plate, Showing Density of Calculi ...	50c
Two Kidneys containing Uric Acid Calculi upon Same Plate, Showing Calculi	50c
Calculi of Kidneys and Bullets, etc., on Same Plate, Showing Calculi to be Relatively About Equally Obstructive to the X-Ray	50c
Living Kidney, Partially Exposed in an Operation for Calculus of this Organ by Dr. Willy Meyer, and X-Rayed by Dr. Morton	50c
X-Ray showed absence of a Calculus which was verified by incision by the operator. Patient fully recovered.	
Foreign Body in Scrotum	60c
Human Teeth in Situ	50c
Showing the roots and fillings. Also the pulp chambers and location of disease at the roots and in the bone, exostoses, etc., etc.	
An Unsuspected Canine Tooth in an Adult which had never Erupted	50c
Demonstrating the value of the X-Ray in Dentistry.	
Knife Blade in Knee Joint, Twenty years' Adult ..	50c
Bullet in Skull	75c
Located posterior, region of the orbit.	
Metallic Button with pin (a lapel button)	75c
In middle region of the œsophagus. Front view, child three years of age. Shows heart, liver and spleen finely.	
Same, back view ..	75c
Again showing button, etc.	
Same, full length, (34 inches long) ..	1.50
Taken in one exposure at 30 inches distance. Time 8 minutes. A particularly good picture, showing pelvis as well as trunk and the organs.	
Same, full figure ..	2.00
Two exposures joined (from head to ankles).	
Lantern Slides of any of the foregoing Negatives furnished to order for 60c. each.	

A MOST IMPORTANT WORK OF GENERAL INTEREST.

THE X-RAY; or, Photography of the Invisible and its Value in Surgery.

By WILLIAM J. MORTON, M. D.

Written in collaboration with Edwin W. Hammer. One vol., 12mo., cloth and silver 75 cts.; paper 50 cts.

Nearly 100 Fine Illustrations.

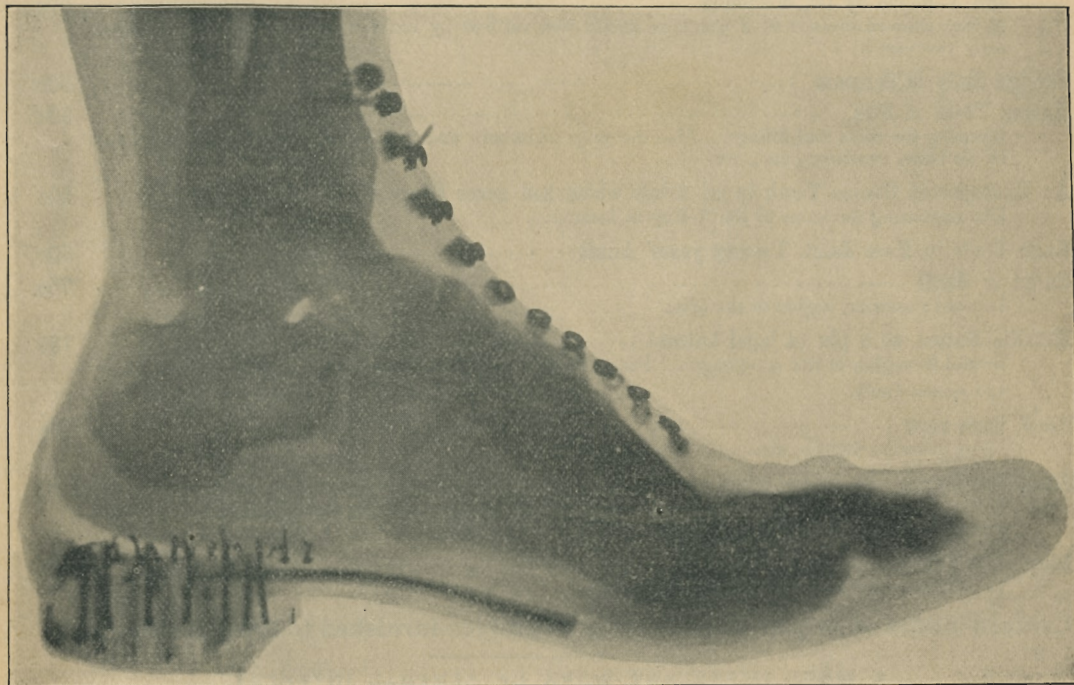
Everyone has been waiting for this work to give full information of Professor Roentgen's marvelous discovery. The work explains in clear and simple style how these extraordinary pictures are taken through solids. Full description is given of the apparatus used and the text is profusely illustrated with fine half-tone illustrations giving fac-simile copies of the pictures taken from the negatives of the author. The subjects are varied. One shows distinctly a bullet lodged in a man's hand for which the surgeon had probed without success. The X-Ray showed the bullet at once and the surgeon had no difficulty in removing it. The text is beautifully illustrated with these wonderful X-Ray pictures. The book is of inestimable value to the physician and surgeon, the photographer and scientific student, but will be largely read by the public generally for the subject is most fascinating and instructive. It is unquestionably the most important scientific discovery of all times.

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